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GLOSSARY

100-year floodplain – The land area adjacent to a river or stream that would be inundated by (and convey) a flood of a given magnitude that is statistically likely to occur once every 100 years. In other words, there is a 1% probability that a flood of this magnitude would occur in any given year. The area of the 100-year floodplain surrounding a particular channel is derived from a statistical analysis. It does not indicate that a 100-year flood will not occur more than once within 100 years (see also *floodplain* and *500-year floodplain*).

500-year floodplain – The land area adjacent to a river or stream that would be inundated by (and convey) a flood of a given magnitude that is statistically likely to occur once every 500 years. In other words, there is a 0.2% probability that a flood of this magnitude would occur in any given year. The area of the 500-year floodplain surrounding a particular channel is derived from a statistical analysis. It does not indicate that a 500-year flood will not occur more than once within 500 years. Note that the 500-year floodplain of a particular channel is larger than that channel's 100-year floodplain and contains it (see also *floodplain* and *100-year floodplain*).

Agency-listed species – Species with restricted distributions, specialized habitat requirements, and population pressures (human induced and natural) that contribute to a high potential for federal listing; thus, their populations are of conservation interest for the agency.

Alluvium – Sediments deposited by flowing water (in the case of Coal Creek, mostly sand and gravel). Multiple episodes of alluvial deposition may occur in the same area.

Alkaline – Pertaining to water or soil having a pH greater than 7.

Annual flood – The highest peak discharge in a water year (see also *flood peak*).

Anthropogenic – Of, relating to, or resulting from the influence of human beings.

Aquifer – An underground geological formation, or group of formations, containing water. Aquifers are sources of groundwater for wells and springs.

Aquitard – A geological formation that may contain groundwater but is not capable of transmitting significant quantities of it under normal hydraulic gradients. It may function as confining bed.

Archaeological site – A relatively discrete, definable accumulation of cultural materials (typically refuse and debris) that reflects the past activities of an individual or group, retains integrity of location, and is reasonably interpretable in terms of past human behavior at that location (see also *Site*).

Archaeology – A sub-discipline of anthropology that is dedicated to the scientific study of the material remains left behind by humans in order to answer specific questions about past human activities and culture.

Artifact – Any portable object that is a product of past human activity.

Background concentration – The measurable level of a substance in an environmental medium (e.g., air, water, or soil) as it occurs naturally, unaltered by human activity.

Backwater – Water backed up or retarded in its course as compared with its normal or natural condition of flow.

Bank – The portion of the channel cross section that restricts lateral movement of water at normal levels. The bank often has a gradient steeper than 45° and exhibits a distinct break in slope from the stream bottom. An obvious change in substrate may be a reliable delineation of the bank.

Bankfull stage – A hydraulic term referring to the stage at which a stream first overflows its natural banks (see also *flood stage*, which describes the same phenomenon, but in terms of damage).

Basalt – A crystalline rock of volcanic origin. Its mineral composition gives it a dark or black color. It is frequently found used in chipped stone or ground stone artifacts.

Base flow – In hydrologic terms, a streamflow that is essentially fed by groundwater; a low summer flow.

Bedload – Sediment particles resting on or near the channel bottom that are pushed or rolled along by the flow of water.

Benefit-cost analysis – A quantitative method used to determine if the total benefits produced by a project exceed the total costs of the project.

Best management practice (BMP) – Generally, a method that has been determined to be the most effective, practical means of preventing or reducing a negative result during implementation of an action.

Channel – An open conduit (either naturally or artificially created) that periodically or continuously contains moving water, or that forms a connecting link between two bodies of water. Creeks, rivers, runs, branches, anabranches, and tributaries are examples of natural channels. Canals and floodways are examples of artificial channels.

Channel capacity – The maximum flow that can pass through a channel without overflowing the banks.

Channel invert – The lowest point of a channel.

Channel storage – The volume of water at a given time in the channel or over the floodplain of the streams in a drainage basin or river reach. Channel storage is great during the progress of a flood event.

Channelization – The straightening and deepening of streams so that water will move faster.

Civilian Conservation Corps (CCC) – A Great Depression-era federal employment program that was instrumental in the development of soil conservation, grazing, recreation, and other development programs throughout the U.S.

Clear cut (n) – Harvesting all the trees in one area at one time, a practice that can destroy habitat and exacerbate runoff, erosion, sedimentation of streams and lakes, and flooding.

Consultation – In a cultural-resources context, the formal process of disclosure conducted by the lead agency that makes determinations regarding the disposition of cultural resources under the provisions of the National Historic Preservation Act (NHPA) to interested parties, including the State Historic Preservation Office (SHPO), who may comment upon or concur with the decisions of the lead agency.

Conservation agreement – A formal written document agreed to by the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service and another federal agency or a tribe, a state agency, a local government, or the private sector to achieve the conservation of candidate species through voluntary cooperation. It documents the specific actions and responsibilities for which each party agrees to be accountable.

Conservation species – A species protected under a Conservation Agreement.

Control – A natural constriction of the channel, a long reach of the channel, a stretch of rapids, or an artificial structure downstream from a gaging station that determines the stage-discharge relation at the gage. A control may be complete or partial. A complete control exists where the stage-discharge relation at a gaging station is entirely independent of fluctuations in stage downstream from the control. A partial control exists where downstream fluctuations have some effect upon the stage-discharge relation at a gaging station. A control, either partial or complete, may also be shifting. Most natural controls are shifting to a degree, but a shifting control exists where the stage-discharge relation experiences frequent changes owing to an impermanent bed or banks.

Cubic feet per second (cfs) – A unit of measure expressing the rate of discharge of water. One cubic foot per second is equal to the discharge of a stream of rectangular cross section, 1 foot wide and 1 foot deep, flowing water an average velocity of 1 foot per second.

Cultural resource – Historic and prehistoric archaeological sites, architectural features (e.g., structures, buildings, roads, ditches, bridges), records or documents, artifacts or features, or traditional cultural properties that are greater than 50 years of age or that have demonstrated some great role in history within the past 50 years.

Culvert – A transverse drain or waterway of masonry, concrete, and/or metal under a road, railroad, canal, or small bridge.

Demographics – The characteristics of human populations and population segments.

Deposition – The laying down of sediments.

Detritus – Organic debris from decomposing plant and animal species.

Dewatering – The process of diverting or withdrawing water from a stream course.

Direct runoff – Water that flows over the ground surface or through the ground directly into streams, rivers, and lakes. It may also refer to the runoff entering stream channels promptly after rainfall or snowmelt.

Discharge – A general term that means outflow. The use of this term is not restricted to a natural course or location; it can describe the flow of water from a pipe or from a drainage basin. If the discharge occurs in some course or channel, it is correct to speak of the discharge of a canal or of a stream.

Dissolved oxygen (DO) – The amount of oxygen (O₂) dissolved in water, measured in parts per million. Freely available dissolved oxygen is vital to fish and other aquatic life and for the prevention of odors.

Disturbance – Any event or series of events that disrupts and/or alters the physical environment for a sustained period.

Diversion – The taking of water from a stream or other body of water into a canal, pipe, or other conduit.

Diversion/Drop structure – A water control feature that is designed to divert water from its primary source to another channel, typically for irrigation purposes. This structure may be combined with structure designed to create a sudden vertical drop in the channel to control the channel gradient.

Division structure – A water control feature designed to divide water from an irrigation canal or ditch channel into any number of canals or ditches, each typically of similar classification of service.

Drainage area – The drainage area of a stream at a specified location is that area, measured in a horizontal plane, which is enclosed by a drainage divide.

Drainage basin – A part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Drainage divide - A boundary between adjacent drainage basins or watersheds.

Dredge – To mechanically remove sediments and debris from the bottom of a river or other water body to increase storage or conveyance capacity. Dredging activities may be subject to regulation under Section 404 of the Clean Water Act.

Easement – In the context of this project, a specific right-of-way for access, construction, or other purpose that is granted, leased, or sold by the property owner to a third party. For example, a property owner may grant an access easement to the city for the construction and subsequent use of a trail across her property.

Eligible – Cultural resources that possess integrity of location, design, setting, workmanship, materials, feeling, and/or association, and have been determined to meet one or more of the criteria of the National Register of Historic Places (see also *Not eligible*).

Emissions – Pollution discharged into the atmosphere from smokestacks, other vents, and surface areas of commercial or industrial facilities; from residential chimneys; or from motor vehicle, locomotive, or aircraft exhausts.

Environmental Justice – As set forth in Executive Order 12898, the federal government is required to consider potential disproportionate effects on minority or low-income populations. The order was designed to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to federal projects, programs, or policies.

Erosion – The wearing away of land surface through physical or chemical processes (e.g., wind, water). Erosion dislodges and transports particles or soils or rock.

Erodibility – The level of susceptibility that a material (e.g., soil type) has to erosive forces.

Evaporation – The process by which water is changed from the liquid or the solid state into the vapor state. In hydrology, evaporation is vaporization that takes place at a temperature below the boiling point.

Fault – A slip-surface between two portions of the earth's surface that have moved relative to each other. A fault is a failure surface and is evidence of severe earth stresses.

Fault zone – An area of the earth's surface hundreds or thousands of feet wide that consists of numerous, interlacing small faults.

Feature – In a cultural-resources context, any type of archaeological remains that is not portable, such as soil color changes, architectural remains, etc. A feature may range in size from a single posthole to a large, linear, constructed element such a canal.

Federal nexus – In terms of NEPA, the involvement of federal government in a proposed action through rule making, permitting, control, or funding, that is the "trigger" for initiating the NEPA process. A "major federal action significantly affecting the quality of the environment" is a federal nexus and requires NEPA.

Flood – An overflow or inundation that comes from a river or other body of water and causes or threatens damage. Also, a relatively high flow as measured by either gage height or discharge quantity.

Flood peak – The highest value of the stage or discharge attained by a flood; thus, peak stage or peak discharge.

Flood plane – The position occupied by the water surface of a stream during a particular flood. Flood plane also loosely refers to the elevation of the water surface at various points along the stream during a particular flood.

Flood profile – A graph of elevation of the water surface of a river in flood. A flood profile may be drawn to show elevation at a given time, crests during a particular flood, or stages of concordant flows.

Flood routing – The process of determining progressively the timing and shape of a flood wave at successive points along a river.

Flood stage – The gage height of the lowest bank of the reach in which the gage is situated. "Lowest bank" does not, however, mean an unusually low place or break in the natural bank through which the water inundates an unimportant and small area. Flood stage also refers to the stage at which overflow of the natural banks of a stream begins to cause damage in the reach in which the elevation is measured.

Flood wave – A distinct rise in stage, culminating in a crest and followed by recession to lower stages.

Flood zone – The land bordering a stream that is subject to floods of about equal frequency (e.g., a strip of the floodplain subject to flooding more often than once but not as frequently as twice in a century).

Flood, maximum probable – The largest flood for which there is any reasonable expectancy in this climatic era.

Flood-control storage – Storage of water in reservoirs to abate flood damage.

Floodplain – The area of land adjacent to a river or stream that is subject to recurring, periodic inundation.

Floodway – A part of the floodplain otherwise leveed, reserved for emergency diversion of water during floods. A part of the floodplain that is kept clear of encumbrances, so as to facilitate the passage of floodwater. A floodway is also the channel of a river or stream, and those parts of the floodplains adjoining the channel, that are reasonably required to carry and discharge the floodwater of the river or stream.

Flushing action – Streamflow of sufficient magnitude and duration to scour and remove fine sediments from a stream channel. Flushing action is also a flow that is sufficient to form and maintain channel shape and size.

Fluvial – Pertains to a river or flowing water. Fluvial is a technical term used to indicate the presence or interaction of a river or stream with the landform.

Footwall – The lower wall of an inclined fault.

Forb – An herbaceous plant other than a grass, sedge, or other grasslike plant.

Four-square – An architectural design common to Utah residences between ca. 1900 and ca. 1920 possessing a square footprint, among other distinctive elements of design (e.g., a pyramidal or hipped roof, primarily associated with the Neoclassical and Prairie School styles, in contrast with Victorian styles of the period). The four-square design typically possesses four evenly divided cells and is occasionally seen in more modest, single-cell residences.

Fugitive dust – Airborne particles emitted from any source other than through a stack, such as the fine soil particles that can become airborne as a result of construction activity.

Freeboard – The vertical distance from the normal water surface to the top of a confining wall or overhead.

Gage height – The water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used in the context of a reading on a gage.

Gaging station – A particular site on a stream, canal, lake, or reservoir where systematic, measurable observations of gage height or discharge are obtained.

Geomorphic – Pertains to the form of the earth or its surface features.

Geomorphology – The field dealing with the nature, change, and origin of the earth's topography.

Gradient – The ratio of drop in a stream per unit distance, usually expressed as feet per mile or meters per kilometer. A high gradient indicates a steep slope and rapid flow of water (i.e., more ability to erode), whereas a low gradient indicates a more nearly level streambed and slower moving water.

Groundwater – Water occurring beneath the land surface in water-bearing layers of rock called aquifers. Because groundwater is a major source of drinking water, there is growing concern over contamination from leaching agricultural or industrial pollutants or leaking underground storage tanks.

Habitat – An environment that provides the life requisites (food, shelter, etc.) for a given organism or population sufficient for survival.

Hanging wall – The upper wall of an inclined fault.

Herbaceous – Herblike; not woody.

Heritage interpretation – A public display of history, discussions of cultural resources, and descriptions of the role that specific events played in the development of a community that can enhance the ability of cultural resources to convey associations with the past.

Historic property – Any cultural resource that is listed on the National Register of Historic Places (NRHP) or is determined eligible for listing on the NRHP. Artifacts, records, and remains that are related to and located within such properties are included (see also *Site*).

Historical – Materials, buildings, or structures associated with persons who lived or events that occurred during the time when written records were maintained, but are aged at least 50 years or more.

Historical property – Any property that is greater than 50 years of age (see also *Site*).

Human remains – The funerary objects, skeletal components, components remaining after cremation, and any other component left after and associated with the burial or disposition of a person after death.

Hydrograph – The flow of a river or stream for a given period of time, depicted as volume over time (e.g., cubic meters per second).

Hydraulic gradient – In general, the direction of groundwater flow due to changes in the depth of the water table.

Hydrology – The science encompassing the properties, distribution, and circulation of water as it occurs in the atmosphere, on the surface of the ground, and underground.

Hydrophyte – Any plant growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content (plants typically found in wet habitats).

Hydrophytic – water-loving.

Impoundment – A body of water or sludge confined by a dam, dike, floodgate, or other barrier.

Incised – A channel that has cut downward, leaving steep banks.

Infiltration – The penetration of water through the ground surface into sub-surface soil (see *Percolation*).

Instream values – Generally those parameters or uses within a stream; specifically, those instream values listed in RCW 90.54.020(3)(a) that perennial rivers and streams shall be retained with base flows that preserve wildlife, fish, scenic, aesthetic, and other environmental values and navigational values.

Intermittently flooded – Water regime in the Cowardin et al. wetland classification, in which the substrate is usually exposed, but surface water is present for variable periods without detectable seasonal periodicity.

Isolated artifacts or features – Cultural resources that occur without sufficient volume or integrity to convey interpretable association with aspects of past human behavior and, as a result, cannot be evaluated under the criteria of the National Register of Historic Places.

Jurisdictional wetlands – Wetlands that are regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act of 1977. Jurisdictional wetlands must exhibit hydrology, hydrophytes, and hydric soils. Some areas that function as wetlands ecologically, but exhibit only one or two of the three characteristics, do not currently qualify as jurisdictional wetlands and thus activities in these wetlands are not regulated under Section 404. Such wetlands, however, may still perform valuable ecological functions.

Levee – An artificial embankment along a watercourse to protect land from flooding.

Limestone – A sedimentary rock consisting chiefly of calcium carbonate, principally in the form of the mineral calcite.

Lithic scatter – A cultural resource site type that possesses evidence, in the form of debris (flakes, or debitage), associated with the reduction of toolstone materials in the effort of manufacturing tools.

Lithology – The character of a rock described in terms of its structure, color, mineral composition, grain size, and arrangement of component parts; all those visible features that in the aggregate impart the individuality of the rock.

Longitudinal profile – The elevational profile of a stream drawn along its length, from source to mouth.

Meander – The winding of a stream channel. Meander may also refer to a specific bend in a stream channel.

Modern – In a cultural-resources context, materials, buildings, structures, or events associated with persons or activities occurring within the past 50 years.

Morphology – The shape and form of a natural item, such as a drainage or plant.

Multimodal – Facilities serving more than one transportation mode, or a transportation network composed of a variety of modes (e.g., a trail network serving pedestrians, cyclists, and equestrian users).

Multiple use – Use of land for more than one purpose (e.g., grazing of livestock, watershed and wildlife protection, recreation, and timber production). The term also applies to use of bodies of water (e.g., recreational purposes, fishing, and water supply).

National Historic Preservation Act of 1966, as amended (NHPA) – Federal legislation (16 U.S.C. § 470) establishing a national program for the preservation of historic properties (see also *historic properties*).

National Register of Historic Places (NRHP) – The listing of cultural resources recognized by the U.S. Department of the Interior, National Park Service to be significant to the history of the region, state, or nation. These resources are typically given specific boundaries and official designations by name as a result of their nomination. Federal agencies are required by the National Historic Preservation Act (NHPA) to consider the effects of their undertaking upon sites listed on or eligible for listing on the NRHP.

Native American – As defined under federal legislation (25 U.S.C. § 3000.10), peoples, events, or materials of, or relating to, a tribe, people, or culture that is indigenous to the U.S.

Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) – Legislation passed by Congress in 1990 (25 U.S.C. § 3001) that requires that each federal agency and museum that receives federal funds to identify and inventory Native American, Alaskan Native, and Native Hawaiian human remains, funerary and sacred objects, and objects of cultural patrimony in their collections in the spirit of repatriation to the appropriate group based along the lines of patrimony, establishing requirements for repatriation along the lines of patrimony in the event of discovery of such human remains or sacred objects.

Native plant species – A species that is a part of the original flora of a given area.

Neo-tropical migratory birds – Birds that breed north of Mexico and overwinter largely south of the U.S.

No Action Alternative – The alternative required by NEPA that proposes the status quo or the continuance of current practices.

Normal fault – A fault along which the hanging wall has moved down relative to the foot-wall.

Not eligible – Cultural resources that have been determined to not possess integrity of location, design, setting, workmanship, materials, feeling, and/or association, and do not meet one or more of the criteria of the National Register of Historic Places (see also *Eligible*).

Noxious weed – Any living stage (including seeds and reproductive parts) of a parasitic or other plant of a kind that is of foreign origin, is new to or not widely prevalent in the U.S., and can directly or indirectly injure crops, other useful plants, livestock, poultry, or other interests of agriculture, including irrigation, navigation, fish and wildlife resources, or the public health.

Off-stream use – Water withdrawn from surface water or groundwater sources for use at another place.

Overland flow – The flow of rainwater or snowmelt over the land surface toward stream channels. After it enters a stream, it becomes runoff.

Paiute Reservation Plan of 1984 – A new reservation land base added with the return of 4,800 acres of BLM land (out of 15,000 acres lost), in order to recover lands lost due to termination. The original lands lost were not included. The lands are small parcels and undeveloped. The selection of these lands was based on their economic potential, and as a result, most of them are located along I-15 and I-70. As a compromise, the Paiute Tribe agreed to a \$2.5 million irrevocable trust fund to be set up to assist the Tribe in Economic Development and Tribal Government.

pH – An expression of the intensity of the basic or acidic condition of a liquid; pH may range from 0 to 14, where 0 is the most acidic and 7 is neutral. Natural waters usually have a pH between 6.5 and 8.5.

Pedestrian inventory – In a cultural-resources context, an intensive, on-the-ground, walking survey of an area to identify cultural resources.

Percolation – The movement of water through the interstices of rock or soil. Percolation is also the movement of water downward and radially through subsurface soil layers, usually continuing downward to groundwater.

Pleistocene – A division of the Quaternary period lasting from 2 million years ago to 10,000 years ago.

Potentiometric surface – A surface representing the total head of groundwater and defined by the levels to which water will rise in tightly cased wells.

Poverty – Having an income below what is necessary for basic necessities (e.g., adequate housing, food, transportation, energy, health care, etc.). Federal poverty guidelines are used to establish thresholds to determine eligibility for federal assistance programs.

Precipitation – As used in hydrology, precipitation is the discharge of water, in liquid or solid state, out of the atmosphere, generally upon a land or water surface. It is the common process by which atmospheric water becomes surface or subsurface water. Precipitation includes rainfall, snow, hail, and sleet.

Prehistoric – Materials, buildings, or structures associated with persons who lived or events that occurred prior to the time when written records were maintained.

Proposed Action – In NEPA, the activities initially proposed to meet the stated Purpose and Need.

Pumping station – Mechanical device installed in sewer or water system or other liquid-carrying pipelines to move the liquids to a higher level.

Recharge – The process by which water is added to a zone of saturation, usually by percolation from the soil surface (e.g., the recharge of an aquifer).

Recharge area – A land area in which water reaches the zone of saturation from surface percolation (e.g., where rainwater soaks through the earth to reach an aquifer).

Return flow – Also called return water. The part of irrigation water that is not consumed by evapotranspiration and that returns to its source or another body of water. The term is also applied to the water that is discharged from industrial plants.

Revetment – A structure built along the streambank to prevent erosion and other damage from flowing water.

Riparian – Pertains to the banks and adjacent areas of a river or stream and the associated vegetation requiring intermediate levels of soil moisture (e.g., mesic vegetation).

Riparian habitat – Areas adjacent to rivers and streams with a differing density, diversity, and productivity of plant and animal species relative to nearby uplands.

Rip-rap – Boulders or rubble used to construct a revetment.

River basin – The land area drained by a river and its tributaries.

Riverine – On or near the banks of a river; riparian. Riverine also means relating to, formed by, or resembling a river.

Runoff – The precipitation, snowmelt, or irrigation water that runs off the land into streams or other surface water. It can carry pollutants from the air and land into receiving waters. It is the same as streamflow unaffected by artificial diversions, storage, or other works of man in or on the stream channels.

Sandstone – A sedimentary rock consisting of quartz sand united by some cementing material, such as iron oxide or calcium carbonate.

Scour pools – A pool formed by flow directed either laterally or obliquely against a partial channel obstruction or bank.

Scrub-shrub wetland – Wetlands dominated by a mix of hydrophytic woody shrubs and some herbaceous vegetation species such as salt cedar and Russian olive.

Section 106 of the National Historic Preservation Act – A component of the NHPA that requires any federal agency (the agency) having direct or indirect jurisdiction over a proposed federal undertaking to take into account the effect of the proposed actions on historic properties. The agency is responsible for determining if there is an undertaking and, if so, for defining the area of potential effects. The agency is responsible for the identification, evaluation, and assessment of effects to cultural resources. The agency is responsible for the solicitation of comments from the State Historic Preservation Office (SHPO), as well as the comments of other interested parties. Section 106 is generally referred to as "the Section 106 process" and outlines a series of steps whereby a federal agency carries out the mandated identification, evaluation, and consultation as outlined in the NHPA.

Sediment – As used in this document, the loose particles of rock or minerals that are suspended, transported, and deposited by water. Coal Creek has a very high percentage of suspended sediments.

Sediment yield – The quantity of sediment arriving at a specific location.

Sedimentation – The settling of sediments via gravity.

Sedimentation basin – A structure engineered to facilitate the sedimentation of suspended solids, resulting in cleaner water. Sediment is then dredged from the basin.

Site – In a cultural-resources context, a vernacular term used to describe cultural resources that occur with sufficient context, association, volume, or integrity that they are reasonably interpretable in terms of past human behavior. Often, individual sites are designated by proper name or an official designation.

Slope – An incline of any part of the earth's surface.

Sluice pipeline – The pipeline used to help maintain the sedimentation basin through which accumulated silt and sand may be ejected downstream of the diversion structure.

Special status species – Any federally listed endangered, threatened, or candidate species, state-listed species, or other agency-listed species.

Specific conductance – A rapid method of estimating the dissolved solid content of a water supply by testing its capacity to carry an electrical current.

Stage – The height of water surface above an established datum plane (see also *gage height*).

Stage-discharge relation - The relation between gage height (stage) and the volume of water per unit of time (discharge) flowing in a channel.

State-listed species – Species with restricted distributions, specialized habitat requirements, and population pressures (human induced and natural) that contribute to a high potential for state listing; thus, their populations are of conservation interest for the state.

State Historic Preservation Office (SHPO) – The office of the official appointed or designated officer pursuant to Section 101(b)(1) of the National Historic Preservation Act (NHPA) to administer the State Historic Preservation Program in each territory or state, thereby administering articles of federal law at the state or territorial level.

State Historic Site – A historic property that is listed by an official name on a state-level register, frequently as a subset of the National Register of Historic Places (NRHP), having demonstrated eligibility under the criteria of the NRHP.

State Implementation Plan (SIP) – An EPA-approved state plan for the establishment, regulation, and enforcement of air pollution standards.

Stratigraphy – Study of the formation, composition, and sequence of sediments, whether consolidated or unconsolidated.

Stream channel – The bed where a natural stream of water runs or may run; the long narrow depression shaped by the concentrated flow of a stream and covered continuously or periodically by water.

Stream gaging – The process and art of measuring the depths, areas, velocities, and rates of flow in natural or artificial channels.

Stream order – A method of numbering streams as part of a drainage basin network. Tributaries that have no branches are designated to be of the first order; streams that receive only first-order tributaries are of the second order; larger branches that receive only first-order and second-order tributaries are designated third order; and so on. The main stream is always of the highest order.

Streamflow – The discharge that occurs in a natural channel. The term streamflow uniquely describes the discharge in a surface stream course, even though the term discharge can be applied to the flow of a canal.

Streamflow depletion – The amount of water that flows into a valley, or onto a particular land area, minus the water that flows out the valley, or off of the particular land area.

Sub-reach – Portion of stream channel within a reach.

Subsidence – The gradual sinking, or sometimes abrupt collapse, of the earth's surface.

Substrate – Material on the bottom of a stream, lake, or pond. Substrate also refers to the medium on which an organism can grow, usually a stream or lake bottom composed of silt, sand, gravel, cobble, boulder, and/or bedrock.

Sub-watershed – The topographic perimeter of the catchment area of a stream tributary.

Suspended load – Specific sediment particles maintained in the water column by turbulence and carried with the flow of water.

Tail water – The runoff of irrigation water from the lower end of an irrigated field.

Terrace – A relatively level bench or step-like surface breaking the continuity of a slope. The term is applied to both the lower or front slope (the riser) and the flat surface (the tread).

Topography – The physical features of a surface area, including relative elevations and the position of natural and man-made (i.e., anthropogenic) features.

Total dissolved solids (TDS) – All material that passes the standard glass river filter, afterwards called total filterable residue. TDS is frequently used in the context of salinity.

Total suspended solids (TSS) – A measure of the suspended solids in wastewater, effluent, or water bodies, determined by tests for total suspended non-filterable solids.

Traditional Cultural Property (TCP) – Defined in *National Register Bulletin 38* as a property that is eligible for inclusion on the National Register of Historic Places (NRHP) because of its association with cultural practices or beliefs of a living community that: 1) are rooted in that community's history; and 2) are important in maintaining the continuing the cultural identity of that community.

Trash scatter – A historical cultural resource site type that represents the unregulated disposal or dumping of waste at some distance away from the waste generator, or source.

Turbidity – The cloudiness or muddiness of water due to suspended silt or organic matter.

Undertaking – In a cultural-resources context, any project, action, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including 1) those carried out by or on behalf of the agency; 2) those carried out with federal financial assistance; 3) those requiring a federal permit, license, or approval; 4) those subject to state or local regulation administered pursuant to a delegation or approval by a federal agency [Section 301(7) of NHPA]; and 5) those that have the potential to impact environmental resources, including archaeological sites and historic sites.

Undesirable plant – A plant species classified as undesirable, noxious, harmful, exotic, injurious, or poisonous under state or federal law, but not including species listed as endangered by the Endangered Species Act or species indigenous to the area where control measures are to be taken.

Unit hydrograph – The hydrograph of direct runoff from a storm uniformly distributed over the drainage basin during a specified unit of time. The hydrograph is reduced in vertical scale to correspond to a volume of runoff of one inch from the drainage basin. A unit hydrograph can also be the hydrograph of surface runoff (not including groundwater runoff) on a given basin due to an effective rainfall falling for a unit of time.

Velocity – Distance traveled in a given unit of time.

Wash – A watercourse associated with an alluvial fan, stream, or river channel. Washes are often associated with arid environments and are characterized by large, high-energy discharges with high bed-material load transport. Washes are often intermittent and their beds sparsely vegetated.

Water control feature – General term for a structure that is constructed for the purpose of regulating erosion or flow of water.

Water equivalent of snow – Amount of water that would be obtained if a given amount of snow should be completely melted. Water content may be merely the amount of liquid water in the snow at the time of observation.

Water table – The upper surface of a zone of saturation; the level of groundwater.

Watershed – A geographical region that drains into a particular body of water.

Watershed area – A topographic area within a line drawn connecting the highest points uphill of a drinking water intake, into which overland flow drains.

Weed – Any plant growing where it is not wanted.

Wet meadow wetland – Wetlands dominated by hydrophytic herbaceous vegetation species such as grasses, rushes, and sedges (e.g., inland salt grass and black-tip needle rush).

Wetlands – Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Zone of saturation - The part of a ground water system in which all of the spaces between soil and rock material are filled with water. Water found within the zone of saturation is called ground water. The water table is the top of the zone of saturation.

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ACRONYMS

APE	Area of potential effects
BA	biological assessment
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BMP	best management practice
CCC	Civilian Conservation Corps
CE	categorical exclusion
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cfs	cubic feet per second
CWA	Clean Water Act
dB	decibel
DEIS	Draft Environmental Impact Statement
DO	dissolved oxygen
DOI	U.S. Department of the Interior
DOT	U.S. Department of Transportation
EA	environmental assessment
EFH	essential fish habitat
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESA	Environmental Site Assessment

Acronyms

ESI	ecological site inventory
FERC	Federal Energy Regulatory Commission
FHWA	Federal Highway Administration
FLPMA	Federal Land Policy and Management Act
fps	feet per second
FS	Forest Service (U.S. Department of Agriculture)
GIS	geographic information systems
GPS	global positioning system
Hz	Hertz
I-15	Interstate 15
MBTA	Migratory Bird Treaty Act
msl	mean sea level
NA	not available
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NPV	net present value
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
OHV	off-highway vehicle
ORRV	Outstandingly Remarkable River Values

PM ₁₀	particulate matter
ppt	parts per thousand
Rm	river mile
ROW	right-of-way
ROWs	rights-of-way
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
TCP	traditional cultural property
TDS	total dissolved solids
TES	threatened, endangered, and sensitive
TMDL	total maximum daily load
TSS	total suspended solids
U.S.	United States
U.S.C.	U.S. Code
UDAQ	Utah Division of Air Quality
UDEQ	Utah Department of Environmental Quality
UDWaR	Utah Division of Water Resources
UDWR	Utah Division of Wildlife Resources
UDWRi	Utah Division of Water Rights
UHE	Utah History Encyclopedia
UP&L	Utah Power & Light
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation

Acronyms

USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VRM	visual resource management

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